NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS
PART 373 HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT
MODULE I - GENERAL PROVISIONS

DYNO NOBEL INC., PORT EWEN FACILITY
TOWN OF ESOPUS, NEW YORK

This Permit authorizes only the hazardous waste units identified in this Permit as permitted units. This Permit does not authorize other units to operate.

The Permittee must submit a plan for the closure any units which had Interim Status which are not authorized by this Permit in accordance with the Closure and Post-Closure requirements contained in 6NYCRR 373-3.7, within 180 days of the effective date of this Permit. Such units include the Detonation Pond, Burning Cage and Burning Grounds all of which have not operated for some time and are not authorized by this permit to operate.

If this Permit conflicts with Regulations which are in effect on the date of final issuance of this Permit, the more stringent requirement applies.

A. EFFECT OF PART 373 PERMIT

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein, sections of the Permit Application referenced herein, including any subsequent Department approved changes to the referenced sections of that Application, and the applicable regulations contained in 6NYCRR Parts 370 through 374, 376, 621 and 624. The applicable regulations or requirements are those which are in effect on the date of final issuance of this Permit. However, the Permittee must also comply with the following requirements, as applicable:

(1) requirements which become effective by statute, including amendments thereto;
(2) requirements of 6NYCRR Part 376, as modified (Land Disposal Restrictions);
(3) requirements of 6NYCRR Parts 373-2.27, 373-2.28, and 373-2.29, as modified (Air Emission Standards); and
(4) other requirements specified in 6NYCRR 373-1.6(e).

The Permittee is authorized to store hazardous waste in containers and treat hazardous waste in the Detonation Chamber and is required to conduct corrective action in accordance with the conditions of this Permit. Any storage, treatment, or disposal of hazardous waste not authorized in this Permit is prohibited unless exempt from 6NYCRR Part 373. Issuance of this Permit does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State or local laws or regulations.

On small quantities the Permittee may perform, for the purpose of testing and development of a process, innovative hazardous waste treatment on wastes streams generated and stored in containers which cannot be

shipped due to DOT restrictions, (e.g., Wastes stored in Butyl Acetate). Such work may only be performed at an onsite designated laboratory or other designated location at the Port Ewen facility. Prior to the conduct of any innovative procedure, the Permittee must submit to the Department for its written approval a report which provides a description of the treatment process, the performance capabilities of the technology or process, and the effects of such technology or process on human health and the environment. If the Department does not respond to the Permittee within 15 days of the receipt by registered mail of such report then the Permittee may initiate the innovative and experimental procedure contained therein.

The Detonation Chamber will be used to deactivate the reactive characteristic of off-specification explosive devices (detonators or partial assembly thereof) manufactured at the Dyno Nobel Inc. Port Ewen Facility.

The following hazardous waste management units are authorized by this Permit:

HAZARDOUS WASTE MANAGEMENT UNITS
Magazine A Bldg. No. 9207
Magazine B Bldg. No. 9208
Magazine C Bldg. No. 9209
Magazine F Bldg. No. 9219
LA Magazine Bldg. No. 3002
Powder Storage Bldg. No. 2037
Liquid Chem. Storage Bldg. No. 3016
Lab Annex Bldg. No. 8111
Detonation Chamber Ext. Steel Magazine
Detonation Chamber in Bldg. No. 2077

All of these are container storage units only except the Detonation Chamber which is a treatment unit. Details on the activities and types and quantities of hazardous waste authorized to be managed are given in Module III for the container storage units, and in Module X for the Detonation Chamber. The Permittee is authorized to manage, store and treat only hazardous wastes which are generated at the Permittee's facility.

Occasionally, products that have been shipped from Port Ewen to distribution facilities cannot be sold due to expiration of product life, discovery of a defect or similar occurrence. The Permittee may accept returns of these detonators to the Port Ewen Facility. Upon receipt, the Permittee will determine the status of these detonators as waste or non-waste based upon a review performed by the Material Review Committee. If determined to be waste, these unmarketable commercial detonators will be processed into a permitted storage area and managed as determined by the Permittee, typically by treatment in the Detonation Chamber. Since no modification can be made to these detonators, no additional characterization will be made.

All plans, reports, specifications and schedules required by the terms of this Permit and all subsequent amendments to those documents are incorporated by reference into this Permit, upon approval, when required,

or acceptance by the Department. Upon incorporation, the provisions of each such document will be binding upon the Permittee and have the same legal force and effect as the requirements of this Permit.

B. PERMIT APPLICATION

The Permittee's Hazardous Waste Part A Permit Application is attached to and incorporated by reference into this Permit. The Permit is based on the Permittee's Hazardous Waste Permit Application as revised in December 1999 and subsequently revised through March 2000. Sections of the Application listed below are incorporated by reference into this Permit. Also incorporated by reference and considered part of the Application are other documents listed in a separate table after the table listing the sections of the Application. The Application and other documents incorporated by reference are made part of this Permit, are binding upon the Permittee and have the same legal force and effect as the requirements of this Permit.

SECTIONS OF APPLICATION INCORPORATED BY REFERENCE
PART B - FACILITY DESCRIPTION • Text Pages 3 through 14 (revised 12/99) • Table B-1 Listing of Hazardous Waste Areas (revised 12/99) • Figures B-1 Topographic Location Map • Table B-2A Permitted Hazardous Waste Storage Areas • Figure B-2B Onsite Sewer System • Figure B-4 Facility Traffic Routes • FIRM Flood Plain Map • Windrose Albany, NY • Wind Data Stuart Airport, Newburgh, NY • Permitted Storage Area Photographs
PART C - WASTE CHARACTERISTICS • Text pages 18 through 26 (revised 12/99) • Table C-1 Hazardous Waste Characterization Matrix (revised 12/99) • Table C-2 Parameters and Rationale for Hazardous Waste Characterization (revised 12/99) • Typical Waste Profiles and Analyses • Detonation Chamber/Test Debris
PART D - PROCESS INFORMATION • Text page 30 through 42 (revised 12/99) • Table D-1 Permitted Hazardous Waste Storage Areas • Figures D-1, D-3, D-5, D-6, D-7 through D-10, and D-12 • Appendix D-1 Building 3016 Containment Capacity Calculations
PART E - CORRECTIVE ACTION REQUIREMENTS Text page 46

PART F - PROCEDURES TO PREVENT HAZARDS

- Text page 49 through 63 (revised 12/99)
- Table F-1 General Inspection Schedule (revised 12/99)
- Table F-2 Hazardous Waste Storage Areas Inspection Checklist (revised 12/99)
- Table F-3 Emergency Equipment List (revised 12/99)
- Dyno Nobel - Port Ewen Plant Safety Information Sheet - May be superceded by a subsequent version submitted and accepted by the Department.

PART G - CONTINGENCY PLAN

- Text page 67 through 85 (revised 12/99)
- Figure G-2 through G-10, G-10A, G-11 through G-15
- Table G-1 Permitted Hazardous Waste Areas (revised 12/99)
- Table G-2 Less Than 90 Day Hazardous Waste Storage Areas (revised 12/99)
- Table G-3 Emergency Coordinator and Alternates (revised 12/99)
- Table G-4 Location of Emergency Monitoring Telephone (revised 12/99)
- Table G-5 Second and Third Shifts Key Personnel to Notify in Event of Emergency (revised 12/99)
- Table G-6 Outside Emergency Support Services (revised 12/99)
- Table G-7 Conrail Emergency Notification Requirements (revised 12/99)
- Table G-8 Government Notification Requirements (revised 12/99)
- Table G-9 Fire Classification of Hazardous Waste Treatment & storage Areas (revised 12/99)
- Table G-10 Typical Spill Response Procedures at Hazardous Waste Areas (revised 12/99)
- Table G-11 Emergency Equipment Listing (revised 12/99)
- Appendix G-1 Sample Coordination Agreements & Sample Letter to Emergency Response Agencies - Agreements and/or letters may vary from the samples but any submittals must meet the minimum requirements of all applicable regulations and this Permit.
- Appendix G-A Location of Fire Hydrants
- Appendix G-2 Primary and Alternate Site Wide Evacuation Routes

PART H - PERSONNEL TRAINING

- Text page 90 through 94 (revised 12/99)

PART I - CLOSURE PLANS, POST CLOSURE PLANS AND FINANCIAL REQUIREMENTS

- Text Page 95 through 114 (revised 12/99)
- Table I-1 Hazardous Waste Units Requiring a Closure Plan (revised 12/99)
- Table I-2 Closure Cost Estimate for an Individual Storage Magazine (Magazine A) (revised (12/99)
- Table I-3 Closure Cost Estimate for an Individual Storage Magazine (Magazine B) (revised (12/99)
- Table I-4 Closure Cost Estimate for an Individual Storage Magazine (Magazine C) (revised (12/99)
- Table I-5 Closure Cost Estimate for an Individual Storage Magazine (Magazine F) (revised (12/99)
- Table I-6 Closure Cost Estimate for an Individual Storage Magazine (LA Magazine) (revised (12/99)
- Table I-7 Closure Cost Estimate for Building 2037 Powder Storage (revised 12/99)
- Table I-8 Closure Cost Estimate for Building 3016 Liquid Chemical Storage Building (revised 12/99)
- Table I-9 Closure Cost Estimate for Building 8111 Lab Annex (revised 12/99)
- Table I-10 Closure Cost Estimate for the Exterior Magazine at the Detonation Chamber (revised 12/99)
- Table I-11 Closure Cost Estimate for Building 2077 - The Detonation Chamber (revised 12/99)
- Table I-12 Closure Cost Estimate for the Burning Cage (revised 12/99)
- Table I-13 Summary of Estimated Closure Costs (revised 12/99)
- Appendix I-1 Closure Letter of Credit and Standby Trust Agreement
- Appendix I-2 Liability Insurance Coverage

PART J - OTHER FEDERAL AND STATE LAWS

- Text page 117

PART K - PERMITTEE AND ENGINEER'S CERTIFICATIONS

- Pages 119 and 119a

PART X - SPECIFIC INFORMATION REQUIREMENTS FOR MISCELLANEOUS UNITS

- Text 123 through 142
- Table X-1 Inspection, Monitoring and Maintenance Requirements for the Detonation Chamber Treatment Unit
- Table X-2 Hazardous Waste Characterization Matrix
- Table X-3 Parameters and Rationale for Hazardous Waste Characterization
- Table x-4 Approximate Distance of Detonation Chamber to Specific Receptors
- Figure X-1 Detonation Chamber Treatment Facility Location
- Figure X-2 Detonation Chamber Design Drawing
- Figure X-3 Detonation Chamber Design Drawing
- Figure X-4 Detonation Chamber Design Drawing
- Appendix X-1 Selected Engineering Design Drawings

Attachment 1 - General Attachments (Large Drawings and Plans)

DOCUMENTS INCORPORATED BY REFERENCE

ENGINEERING STUDY FOR THE DESIGN AND OPERATION OF CONTAINED DETONATION CHAMBER FOR DEACTIVATION OF OFF-SPECIFICATION DEVICES DATED OCTOBER 1996, ALFRED M. OSBORNE, NEW YORK P.E. NO. 0238

EVALUATION OF DYNO NOBEL CONTAINED DETONATION CHAMBER FEBRUARY 1997 BY JOSEPH A. KAPP, PHD, P.E., ERI, REP. NO. 990212
AIR EMISSIONS ASSESSMENT/ DYNO NOBEL INC./ DETONATION CHAMBER DATED FEBRUARY 1997, LMS, PETER M. McGRODDY, P.E., PARTNER, AS REVISED MAY 9, 1997
INTERIM STATUS APPROVAL LETTER INCLUDING ATTACHED ENCLOSURES A & B, FEBRUARY 18, 1998 BY RODNEY L. ALDRICH, P.E.
PHASE II TEST PLAN FOR AIR EMISSION ASSESSMENT, DYNO NOBEL INC., DETONATION CHAMBER, MAY 1998
DETONATION CHAMBER STARTUP SCHEDULE, JULY 31, 1998

Future modifications to this Permit, including modifications to the Permit Application documents incorporated into this Permit, shall be addressed according to 6NYCRR 373-1.7. The Permittee must submit copies both to the Regional Permit Administrator and as required in Section H of this Module of the replacement: pages, sections, and/or attachments to the Permit Application along with the application request for a Permit modification. The Permittee shall place a revision date on all pages submitted as part of the proposed Permit modification application.

The Permittee must provide and maintain a log of all modifications made to this Permit, including modifications made to the Permit Application documents that are made part of this Permit. The log shall contain at a minimum the following information regarding an approved modification: (1) the name of the specific documents being modified (e.g., contingency plan, security requirements, hazardous waste unit operations, etc.); (2) the pertinent page, section, and/or attachment of this Permit and Permit Application documents subject to modification; (3) the revision date of the modifications; (4) a brief statement regarding the nature of the modifications; and (5) the effective date of the modification to this Permit. The Permittee shall place the log at the beginning of this Permit along with a copy of the Department's approval letters, when applicable.

Upon receipt of a Permit modification issued by the Department, the Permittee must update the log and replace the pages, sections, and/or attachments in the Permit and Permit Application with the modified pages, sections, and/or attachments in the Permit copy maintained by the Permittee.

C. GENERAL REQUIREMENTS FOR THIS PART 373 PERMIT

The Permittee must comply with 6NYCRR Subpart 373-1 as follows:

1. General 6NYCRR 373-1.1

a) 6NYCRR 373-1.1(b) - Applicability;
b) 6NYCRR 373-1.1(c) - Safeguarding Information;
c) 6NYCRR 373-1.1(f) - Uniform Procedures;
d) 6NYCRR 373-1.1(g) - Enforcement;
e) 6NYCRR 373-1.1(h) - Severability; and

f) 6NYCRR 373-1.1(i) - Terms Used.

2. Signatories to Permit Applications and Reports 6NYCRR 373-1.4(a)(5)

a) 6NYCRR 373-1.4(a)(5)(i) - Applications;
b) 6NYCRR 373-1.4(a)(5)(ii) - Reports;
c) 6NYCRR 373-1.4(a)(5)(iii) - Changes to Authorization; and
d) 6NYCRR 373-1.4(a)(5)(iv) - Certification.

3. Recordkeeping 6NYCRR 373-1.4(g)

4. Permit Conditions 6NYCRR 373-1.6

a) 6NYCRR 373-1.6(a) - Conditions Applicable to All Permits;
b) 6NYCRR 373-1.6(a)(1) - Duty to Comply;
c) 6NYCRR 373-1.6(a)(2) - Duty to Reapply;
d) 6NYCRR 373-1.6(a)(3) - Need to Halt or Reduce Activity not a Defense;
e) 6NYCRR 373-1.6(a)(4) - Duty to Mitigate;
f) 6NYCRR 373-1.6(a)(5) - Proper Operation and Maintenance;
g) 6NYCRR 373-1.6(a)(6) - Permit Actions;
h) 6NYCRR 373-1.6(a)(7) - Property Rights;
i) 6NYCRR 373-1.6(a)(8) - Duty to Provide Information;
j) 6NYCRR 373-1.6(a)(9)(i) through (iv) - Inspection and Entry;
k) 6NYCRR 373-1.6(a)(10)(i) through (iii) - Monitoring and Records;
l) 6NYCRR 373-1.6(a)(11) - Signatory Requirements;
m) 6NYCRR 373-1.6(a)(12)(i) through (xi) - Reporting Requirements;
n) 6NYCRR 373-1.6(a)(13) & 373-1.10(c) - Establish/maintain an Information Repository;

The Permittee is required to maintain an Information Repository pursuant to 373-1.6(a)(13) and 373-1.10(c) for at least six months from the date of issuance this Permit. After the six-month period from the Permit issuance date, The Permittee may request the Department to consider the closure of the Information Repository.

o) 6NYCRR 373-1.6(c) - Any conditions of this Permit established pursuant to 6NYCRR 373-1.6(c);
p) 6NYCRR 373-1.6(d)(1)(i) through (iii) - Schedules of Compliance;

The Permittee must comply with the compliance schedules contained in this Permit including those in Module II (and Appendices), Module III, Module X and the special conditions of this Permit.

q) 6NYCRR 373-1.6(d)(2)(i) through (iv) - Alternative Schedules of Compliance.

5. Requirements for Recording and Reporting of Monitoring Results 6NYCRR 373-1.6(b)

The Permittee must comply with the recording, reporting and monitoring requirements listed in this Permit.

The Permittee must use, maintain and install monitoring equipment and methods and report monitoring results as specified in this Permit (including the Permit Application) and 6NYCRR Subpart 373-2. The Permittee must conduct required monitoring with the type, intervals and frequency sufficient to yield data which are representative of the monitoring activity including, when appropriate, continuous monitoring.

6. Permit Modifications 6NYCRR 373-1.7

a) 6NYCRR 373-1.7(a) - Transfer of Permits;
b) 6NYCRR 373-1.7(b) - Modification of Permits;
c) 6NYCRR 373-1.7(c) - Minor Modifications of RCRA Delegated Permits;
d) 6NYCRR 373-1.7(d) - Major Modifications;
e) 6NYCRR 373-1.7(e) - Announcement of Determinations;
f) 6NYCRR 373-1.7(f) - Temporary Authorizations; and
g) 6NYCRR 373-1.7(g) - Newly Regulated Wastes and Units.

7. Expiration and Continuation of Permits 6NYCRR 373-1.8

The Permit shall be in effect for a fixed term not to exceed five years. Complete applications for Permit renewal must be submitted at least 180 days before the expiration date of this Permit pursuant to 6NYCRR 373-1.8(b) to the addresses in Module I, Section H. Renewal applications with a significant change (as defined in paragraph 373-1.10(a)(1) of this Subpart) are subject to 373-1.10 of this Subpart.

Prior to processing the renewal application the Department will determine whether the application is complete. In order for the renewal application to be complete the Permittee must:

a) Satisfy the general requirements for complete application contained in 6 NYCRR Part 621 (Uniform Procedure Regulations)

b) Include all information required, both general and specific to the type of the facility in accordance with the laws, regulations and analytical requirements in effect at the time.

At any time during the review of the renewal application the Department may request in writing any additional information which is necessary for determining the completeness of the application. Failure to provide such information by the date specified in the request may be grounds for denial of the application and the extension allowed pursuant to § 401(2) of the State Administrative Procedures Act.

Should the Permittee cease the hazardous waste management activities allowed by this Permit prior to the expiration of this Permit, then, pursuant to 6NYCRR Subpart 373-1.6(d), the Permittee must continue to comply with the applicable corrective action conditions and requirements stipulated in this Permit (refer to Module II Corrective Action Appendix D). In addition, the Permittee shall submit a renewal application pursuant to 6NYCRR Subpart 373-1.8(b) prior to this Permit's expiration unless and until all the Permittee's corrective action obligations have been completed. In the alternative, the Permittee may execute an order on consent for corrective action pursuant to Environmental Conservation Law (ECL) Section 71-2727(3) with the Commissioner at least 180 days prior to the expiration date of this Permit.

D. FINAL STATUS STANDARDS FOR THIS PART 373 PERMIT

The Permittee must comply with 6NYCRR Subpart 373-2, and the referenced sections of the Permit Application, as follows:

1. General 6NYCRR 373-2.1

a) 6NYCRR 373-2.1(a) - Purpose, Scope and Applicability; and
b) 6NYCRR 373-2.1(c) - Imminent Hazard Action.

2. General Facility Standards 6NYCRR 373-2.2

a) 6NYCRR 373-2.2(a) - Applicability;
b) 6NYCRR 373-2.2(b) - Facility Ownership Transfer;
c) 6NYCRR 373-2.2(d) - Required Notices;
d) 6NYCRR 373-2.2(e) - General Waste Analysis (Section C of the Permit Application);
e) 6NYCRR 373-2.2(f) - Security (Subsection F-1 of the Permit Application);
f) 6NYCRR 373-2.2(g) - General Inspection Requirements (Subsection F-2(a) of the Permit Application);
g) 6NYCRR 373-2.2(h) - Personnel Training (Section H of the Permit Application);
h) 6NYCRR 373-2.2(i) - General Requirements for Ignitable, Reactive, or Incompatible Wastes (Subsections D-1(c) & F-5 of the Permit Application); and
i) 6NYCRR 373-2.2(j) - Location Standards.

3. Preparedness and Prevention 6NYCRR 373-2.3

The Permittee must comply with Subsections F-3(a) & F-3(b) of the Permit Application and 6NYCRR 373-2.3 as follows:

a) 6NYCRR 373-2.3(a) - Applicability;
b) 6NYCRR 373-2.3(b) - Design and Operation of Facility;
c) 6NYCRR 373-2.3(c) - Required Equipment;
d) 6NYCRR 373-2.3(d) - Testing and Maintenance of Equipment;
e) 6NYCRR 373-2.3(e) - Access to Communications or Alarm System;
f) 6NYCRR 373-2.3(f) - Required Aisle Space; and
g) 6NYCRR 373-2.3(g) - Arrangements with Local Authorities.

4. Contingency Plan and Emergency Procedures 6NYCRR 373-2.4

The Permittee must comply with Section G of the Permit Application and 6NYCRR 373-2.4 as follows:

a) 6NYCRR 373-2.4(a) - Applicability;
b) 6NYCRR 373-2.4(b) - Purpose and Implementation of Contingency Plan;
c) 6NYCRR 373-2.4(c) - Content of Contingency Plan;
d) 6NYCRR 373-2.4(d) - Copies of Contingency Plan;
e) 6NYCRR 373-2.4(e) - Amendment of Contingency Plan;
f) 6NYCRR 373-2.4(f) - Emergency Coordinator; and

g) 6NYCRR 373-2.4(g) - Emergency Procedures.

5. Manifest System, Recordkeeping and Reporting 6NYCRR 373-2.5

a) 6NYCRR 373-2.5(a) - Applicability;
b) 6NYCRR 373-2.5(b) - Manifest Requirements;
c) 6NYCRR 373-2.5(c) - Operating Record;
d) 6NYCRR 373-2.5(d) - Availability, Retention, and Disposition of Records;
e) 6NYCRR 373-2.5(e) - Annual Report;
f) 6NYCRR 373-2.5(f) - Unmanifested Waste Report; and
g) 6NYCRR 373-2.5(g) - Additional Reports.

The Permittee must retain for inspection by the Department, the Permit modification log required by Section B, the operating record, documentation to demonstrate compliance with the financial requirements of this Permit, the referenced sections of the Permit Application that are made part of this Permit, and any subsequent Department approved changes to the contents of that Application.

These documents include, but are not limited to, the most recent Department approved: waste analysis plan; contingency plan; closure plan(s); security, inspection, and personnel training requirements; and final engineering documents for all hazardous waste treatment, storage, and disposal units subject to this Permit and for all ongoing corrective action remedies pertinent to solid waste management units and areas of concern either remediated or being remediated pursuant to this Permit.

6. Releases from Solid Waste Management Units 6NYCRR 373-2.6

The Permittee must comply with all the applicable provisions stipulated in 6NYCRR 373-2.6(a) through (k) for "regulated units" and with 6NYCRR 373-2.6 (l) for corrective action at solid waste management units; comply with the conditions stipulated in Module II - Corrective Action Requirements for Solid Waste Management Units and Areas of Concern (and Appendices); and comply with the groundwater monitoring plan approved by the Department, including all subsequent revisions approved by the Department that address the means to implement and achieve compliance with the aforementioned conditions for site-wide contaminated groundwater.

7. Closure and Post-Closure 6NYCRR 373-2.7 & 6NYCRR 373-2.31(c)

The Permittee must comply with Section I of the Permit Application and 6NYCRR 373-2.7 & 6NYCRR 373-2.31(c) as applicable for the closure and post-closure care of the hazardous waste management units (i.e., Magazine A (Bldg. No. 9207), Magazine B (Bldg. No. 9208), Magazine C (Bldg. No. 9209), Magazine F (Bldg. No. 9219), LA Magazine (Bldg. No. 3002), Powder Storage Building (Bldg. No. 2037), Liquid Chemical Storage (Bldg. No. 3016), Lab Annex (Bldg. No. 8111), Detonation Chamber Exterior Magazine, and Detonation Chamber) and the former hazardous waste management units (including the Burning Cage, Detonation Pond, Burning Grounds), as follows:

a) 6NYCRR 373-2.7(a) - Applicability;
b) 6NYCRR 373-2.7(b) - Closure Performance Standard;
c) 6NYCRR 373-2.7(c) - Closure Plan; Amendment to Plan;
d) 6NYCRR 373-2.7(d) - Closure; Time Allowed for Closure;

e) 6NYCRR 373-2.7(e) - Disposal or Decontamination of Equipment, Structures and Soils;
f) 6NYCRR 373-2.7(f) - Certification of Closure and Survey Plat;
g) 6NYCRR 373-2.7(g) - Post-Closure Care and Use of Property;
h) 6NYCRR 373-2.7(h) - Post-Closure Plan; Amendment of Plan;
i) 6NYCRR 373-2.7(i) - Post-Closure Notices;
j) 6NYCRR 373-2.7(j) - Certification of Completion of Post-Closure Care; and
k) 6NYCRR 373-2.31(c) - Closure and post-closure care

8. Financial Requirements 6NYCRR 373-2.8

The Permittee must comply with Subsection I-2 of the Permit Application and 6NYCRR Subpart 373-2.8 for meeting the financial requirements for the hazardous waste management units and for corrective action, as follows:

a) 6NYCRR 373-2.8(a) - Applicability;
b) 6NYCRR 373-2.8(b) - Definition of Terms as Used in this Section;
c) 6NYCRR 373-2.8(c) - Cost Estimates for Closure;
d) 6NYCRR 373-2.8(d) - Financial Assurance for Closure;
e) 6NYCRR 373-2.8(g) - Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care;
f) 6NYCRR 373-2.8(h) - Liability Requirements;
g) 6NYCRR 373-2.8(i) - Incapacity of Owners or Operators, Guarantors, or Financial Institutions;
h) 6NYCRR 373-2.8(j) - Wording of the Instruments; and
i) 6NYCRR 373-2.6(l) - Corrective Action.
j) 6NYCRR 373-2.8(e) - Cost Estimate for Post-Closure Care;
k) 6NYCRR 373-2.8(f) - Financial Assurance for Post-Closure Care;

9. Air Emission Standards 6NYCRR 373-2.27, 373-2.28 and 373-2.29

The Permittee must operate in conformance with all applicable requirements of 6NYCRR 373-2.27, 373-2.28 and 373-2.29 as follows:

a) 6NYCRR 373-2.27 Air Emission Standards for Process Vents; and
b) 6NYCRR 373-2.28 Air Emission Standards for Equipment Leaks.
c) 6NYCRR 373-2.29 Air Emission Standards for Tanks, Surface Impoundments, and Containers.

10. Hazardous Waste Munitions and Explosive Storage 6NYCRR 373-2.31

The Permittee must comply with all applicable provisions in the current 6NYCRR Part 373-2.31 for hazardous waste munitions and explosive storage units. Explosive storage units must at a minimum, be designed and operated to with containment systems, controls, and monitoring that minimize the potential for detonation or other means of release. An explosive storage unit must provide a primary barrier and be designed to direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects.

E. LAND DISPOSAL RESTRICTIONS

The Permittee must comply with all applicable provisions in the current 6NYCRR Part 376 for the land disposal of hazardous waste except for hazardous waste generated by remediation or corrective action activities for placement in an on-site corrective action management unit (CAMU) approved by the Commissioner.

F. WASTE ANALYSIS AND QUALITY ASSURANCE

The Permittee must obtain representative samples of wastes and other materials to be analyzed pursuant to this Permit. The Permittee must perform the sampling and analysis required by this Permit in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 Third Edition (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995) and III (December 1996) and later approved revisions, hereinafter referred to as "SW-846"; Appendix 19 of 6NYCRR Part 371; or an equivalent method approved by the Department.

The Permittee shall conduct a quality assurance program to ensure that the sampling, analysis and monitoring data are technically accurate and statistically valid. The quality assurance program must be in accordance with Chapter One and the requirements of applicable method(s) of SW-846, or an equivalent method approved by the Department.

As required by ECL 03-0119, any laboratory (Permittee or contract) used by the Permittee to perform analysis pursuant to this Permit must be certified by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) in the appropriate categories of analysis, if ELAP issues certifications in such categories. If the Permittee uses a contract laboratory to perform analysis required by this Permit, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis and quality assurance provisions of this Permit.

G. ORAL REPORTS

The oral reports required by 6NYCRR 373-1.6(a)(12)(vi) and 373-2.4(g)(4)(ii) must be made to both the Department using the New York State 24-hour oil and hazardous material spill notification number (800) 457-7362 and the National Response Center using its 24-hour number (800) 424-8802, or any designated telephone numbers which may subsequently replace those listed above.

H. PLANS, REPORTS, SPECIFICATIONS, IMPLEMENTATION SCHEDULES, RENEWAL AND MODIFICATION APPLICATIONS, AND OTHER SUBMITTALS

1. All submittals required by the Permit must be submitted to the addresses listed below.

a) One copy of all submittals to both:

Regional Solid & Hazardous Materials Engineer
NYS Department of Environmental Conservation
Region 3 Office
21 South Putt Corners Road
New Paltz, NY 12561-1696

and

Chief, RCRA Programs Branch

Division of Environmental Planning and Protection
U.S. Environmental Protection Agency, Region II
290 Broadway
New York, NY 10007-1866

b) One copy of all submittals except for that specific only to corrective action to:

Chief, Bureau of Hazardous Waste Management
Division of Solid & Hazardous Materials
NYS Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-7251

This includes all submittals pertaining to the permitted hazardous waste management units and/or for submittals pertaining to the waste reduction requirements of Section I, for which the submittal of two (2) copies to the above address is required.

c) Two copies of all corrective action documents and groundwater monitoring plans to:

Chief, Bureau of Radiation and Hazardous Site Management
Division of Solid & Hazardous Materials
NYS Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-7252

d) One copy of Applications to renew or modify this Permit must be submitted to the following, in addition to the above addresses:

Regional Permit Administrtaor
NYS Department of Environmental Conservation
Region 3 Office
21 South Putt Corners Road
New Paltz, NY 12561

2. The Permittee shall submit plans, reports, specifications, implementation schedules and any subsequent amendments required by this Permit to the Department for review and comment. If the Department determines that any plan, report, specification, schedule or respective amendment required by this Permit is deficient either in whole or in part, the Permittee shall either promptly respond to the comments or make revisions to the submission consistent with the Department's comments. Within a reasonable time frame specified by the Department, a final plan, report, specification, schedule or respective amendment shall be submitted to the Department for approval. An extension of the due date for any submittal may be granted by the Department based on the Permittee's documentation that sufficient justification for the extension exists.

I. WASTE REDUCTION REQUIREMENTS

The Permittee shall comply with the requirements of Article 27, Title 9, Section 27-0908 of the New York State Environmental Conservation Law. All reports and submittals required by Section 27-0908 to be submitted to the Commissioner shall be sent to the addresses specified in Section H.

J. DEFINITIONS

For the purpose of this Permit, terms used herein shall have the same meaning as those in 6NYCRR 370 through 374 and 376 and the terms defined in this Permit, unless this Permit specifically states otherwise. Where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

1. Action Levels. For purposes of this Permit, action levels are hazardous constituent concentrations for a specific environmental medium which if exceeded indicate a potential threat to human health or the environment. The exceedance of action levels may trigger further investigations, studies, and corrective measures. Where available, action levels are based on appropriate promulgated standards established for a specific environmental medium. When promulgated standards are not available, action levels can be media-specific hazardous constituent concentrations derived from non-promulgated human health risk data or environmental risk data with the latter levels being protective of aquatic life or wildlife. An action level may be set at the background level for a hazardous constituent for which data are inadequate to set a human health or environmental health-based level.

2. Areas of Concern (AOC). Pursuant to the authority granted by 6NYCRR 373-1.6(c)(2), an area of concern has been defined for purposes of this Permit to mean an area at the facility, or an off-site area, which is not at this time known to be a solid waste management unit (SWMU), where hazardous waste and/or hazardous constituents are present, or are suspected to be present, as a result of a release from the facility. The term shall include areas of potential or suspected contamination as well as actual contamination. Such area(s) may require study and a determination of what, if any, corrective action may be necessary. All Permit references to and conditions for SWMUs shall apply to areas of concern.

3. Environment. Pursuant to ECL Article 27, Title 9, Section 27-0901, environment means any water, water vapor, any land including land surface or subsurface, air, fish, wildlife, biota and all other natural resources.

4. Release. For purposes of this Permit, release includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment of any hazardous waste, including hazardous constituents, unless expressly authorized under the terms of this Permit or otherwise permitted under law (e.g., SPDES permitted discharges).

5. Solid Waste Management Unit (SWMU). For purposes of this Permit, SWMU includes any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of hazardous or solid wastes. Such units include any area at the facility at which solid wastes have been routinely and systematically released.

K. ENVIRONMENTAL MONITOR

The Permittee shall maintain an escrow balance of $40,000 with the Department for continued funding of a Department of Environmental Conservation Environmental Monitor (Monitor) whose function shall be to monitor the Permittee's compliance at the facility with the Environmental Conservation Law (ECL), the regulations promulgated pursuant thereto, the Permits issued thereto, and germane Administrative Orders on Consent. In addition to on-site work, the Monitor's time chargeable to the Permittee shall include all off-site

work that is directly related to the monitoring function, including travel time, training, report review, meetings and briefings.

1. Conditions - The account to fund an Environmental Monitor shall be maintained as follows:

a) The sum of $40,000 shall be maintained with the Department for funding of environmental compliance activities related to the operation of Dyno Nobel Inc. (Permittee). Notwithstanding Dyno Nobel Inc.'s contribution of funds to the Department with respect to the Environmental Monitor, the parties understand and acknowledge that any individual serving in such capacity shall be and remain an employee of the Department, and shall not be deemed to be in the employ of, or an independent contractor to Dyno Nobel Inc. This sum is based on an estimate of the annual Environmental Monitor program costs and is subject to quarterly revision, however, annual costs shall not exceed the cost equivalent of a full-time Monitor position without prior approval from the Permittee. Subsequent quarterly payments shall be made for the duration of this Permit to maintain an account balance sufficient to meet the next nine months' anticipated expenses. Quarterly payments shall be made in accordance with the following provisions.

b) Costs to be covered by this fund include:

(i) Direct personal service costs and fringe benefits of the Environmental Monitor, including the costs of replacement personnel for the person(s) regularly assigned to this position.

(ii) Direct non-personal service costs, including without being limited to lease of a vehicle if necessary and its full operating costs, and any appropriate chemical sampling and analysis.

(iii) Inflation increases and negotiated salary increase.

(iv) Indirect support or overhead costs at the New York State Department of Environmental Conservation Federally-approved Indirect Cost Rate.

c) Upon written request by Permittee, the Department shall make available to Permittee any records (e.g., vouchers, time records) relating to such Environmental Monitor costs, consistent with applicable law.

d) Subject to the annual cap of the cost equivalent of a full-time Monitor position, the Department may revise the required payment on a quarterly basis to include all costs of monitoring to the Department. The quarterly revision may take into account factors such as inflation, salary increases, accrued interest to be applied to the balance, and changes in operating hours and procedures. Should the need for additional Environmental Monitors arise, The Permittee will be notified of such need not less than 30 days prior to the time the position is established. During the period when additional Monitors are assigned, the annual spending cap shall be amended to reflect the staff supplement. Upon written request by the Permittee, the Department shall provide Permittee with a written explanation of the basis for any modification.

e) The position of Monitor, and the Permittee's corresponding obligations for providing funding or staffing, shall be subject to change at any time upon a showing that the scope of permitted activities has changed, or that the Permittee's enforcement history under the Part 373 regulations and other applicable

Departmental regulations has changed. The amount of the staffing modifications shall be commensurate with the reasons for the change.

f) Within 30 days of written notice by the Department that a payment is due, payment shall be forwarded to the Department. Payment should be sent to:

NYS Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-1510
ATTENTION: Environmental Monitors

g) Upon termination of this Permit and payment of any outstanding costs, the unexpended balance, including interest, will be returned to the Permittee.

h) Failure to make the required payments shall be a violation of this Permit. The Department reserves all rights to take appropriate action to enforce the above payment provisions.

i) On or before the effective date of this Permit, the Permittee will identify for the Department an individual who will serve as the "contact person" for the Environmental Monitor. Such contact person will coordinate on behalf of the Permittee all communications and correspondence with the Environmental Monitor.

j) Permittee shall provide the Monitor with suitable office space, utilities, and telephone service. A reduced indirect rate shall be afforded Permittee in recognition of providing these items.

k) The Environmental Monitor shall, when present at the Dyno Nobel facility, abide by all of the Dyno Nobel's health and safety and operational requirements and policies; provided, however, that this subparagraph shall not be construed as limiting the Environmental Monitor's powers as otherwise provided for by law and shall not result in the Environmental Monitor(s) being less protected than the Environmental Monitor(s) would be if he or she were to abide by State and Federal health and safety requirements.

l) The Environmental Monitor(s) shall receive from the Permittee all general safety training which is normally given to new site employees. This training will be a supplement to the mandatory safety training that Environmental Monitors received from the Department.

m) Permittee shall furnish to the Environmental Monitor(s) a current site policy and procedures manual for health and safety issues. The Permittee shall notify the Environmental Monitor(s) within ten (10) days of any pertinent revisions to the health and safety plan which are related to the duties of the Environmental Monitor(s).

n) The Monitor shall be allowed, immediately upon presentation of appropriate credentials, to (i) enter the facility during all hours of operation; (ii) have access to and copy, at reasonable times, any records required to be maintained at the facility or which relate to compliance with applicable requirements; (iii) inspect at appropriate times any equipment, practices, operations regulated or required under any Permit or order; and (iv) sample or monitor at appropriate times substances or parameters for the purpose of assuring compliance with any Permit, order or applicable requirements.

2. Duties of the Environmental Monitor

The specific responsibilities of the Department's Monitor are dynamic in scope. In general, the Monitor's function is to monitor the Permittee's activities and operations, including, but not limited to, the Permittee's compliance with the Environmental Conservation Law (ECL), the regulations promulgated pursuant thereto, and the Permits issued thereto. This includes hazardous waste storage and treatment activities, on-site activities subject to solid waste, water, or air Permits and regulations, and activities associated with appropriate Administrative Orders on Consent, and the ECL. The Monitor will work with facility staff to facilitate Permit and regulatory compliance. Additionally, the Monitor's on-site presence is intended to benefit the facility by fostering more accurate and timely communications between the Permittee and the Department thus expediting required Department approvals.

The Duties of the Environmental Monitor include, but are not necessarily limited to:

a) Monitor on-site hazardous waste management facilities and activities subject to the Part 373 Permit, appropriate Administrative Orders on Consent, 6NYCRR Parts 370-376 regulations, and the Environmental Conservation Law (ECL). Initiate communications between the Permittee and the Department on appropriate issues to maximize mutual understanding and minimize conflicts. Coordinate critical activities between the Permittee and the Department to facilitate compliance with the Permit and applicable regulations.

b) Monitor on-site activities subject to solid waste, water, or air Permits, appropriate Administrative Orders on Consent, State regulations, and the ECL. Coordinate activities as above.

c) Observe movement of waste within the plant, associated "exempt" and permitted storage areas, and the treatment unit (i.e., the detonation chamber) to facilitate proper handling and accumulation of hazardous waste.

d) Attend regularly scheduled meetings with the Permittee's staff to discuss ongoing projects which may impact the environment or the facility's compliance status, and to review actions taken by the Permittee in response to concerns raised by the Monitor between such meetings.

e) Assist the Department's Permit Writer in reviewing technical submissions to ensure timely review and maximize accuracy and understanding.

f) Observe the Permittee's waste storage and treatment units. Relay any concerns to the Permittee's staff for discussions and, if appropriate, corrective action.

g) Monitor the operation of the various corrective action projects, such as ground water wells, to provide information on the system's performance to the Permittee and Department staff.

h) Be available to Permittee staff when a timely Departmental decision regarding appropriate and acceptable actions during corrective action activities is required. Provide this decision or facilitate communications to minimize project delay.

i) Coordinate and lead the periodic RCRA facility inspections.

j) Participate in informational meetings and public hearings regarding the Permittee's operations.

PART 373 PERMIT MODULE II
CORRECTIVE ACTION REQUIREMENTS FOR SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

DYNO NOBEL INC., PORT EWEN FACILITY
TOWN OF ESOPUS , NEW YORK

A. APPLICABILITY

1. Statute and Regulations. Article 27, Title 9, Section 27-0913, and 6NYCRR 373-2.6(l) requires corrective action, including Corrective Action beyond the facility boundary where necessary to protect human health and the environment, for all releases of hazardous wastes, including hazardous constituents, from any solid waste management unit ("SWMU") at a storage, treatment or disposal facility seeking a 6NYCRR Part 373 Permit, regardless of the time at which waste was placed in such unit. Pursuant to 6NYCRR 373-1.6(c)(2) the Commissioner may impose Permit conditions as the Commissioner determines necessary to protect human health and the environment (i.e., Areas of Concern (AOC(s))).

2. Summary of Corrective Action Process. Corrective action implementation authorized by 6NYCRR 373-2.6 includes: (a) the RCRA Facility Assessment ("RFA"); (b) the RCRA Facility Investigation ("RFI"); and (c) Corrective Measures ("CM"). The RFA is a three phase process that includes: a Preliminary Review ("PR"); a Visual Site Inspection ("VSI"); and a Sampling Visit ("SV"). The PR is a review of all available information on the individual SWMU(s) and AOC(s). During the PR, and in subsequent phases of the RFA, all of the media (i.e., soil, groundwater, surface water/sediment, air and subsurface gas) that could potentially be impacted by release(s) of hazardous waste, including hazardous constituents, are evaluated. Based on this evaluation, the SWMU(s)/AOC(s) will be characterized as to release potentials.

   Following the PR, a VSI is conducted during which all of the SWMU(s)/AOC(s) either previously or newly discovered, are observed. While performing this reconnaissance, any signs of spills or leakage, stained soil, stressed vegetation, unit deterioration, or any other conditions that may be indicative of a release are assessed. By means of these observations and the findings of the PR, the Commissioner may require the facility to conduct a Sampling Visit (SV) at the unit(s)/area(s) where the release(s) would be suspected.

   The SV can involve any or all of the previously described media at any given SWMU and or Area of Concern (AOC). For those units/areas where releases are clearly demonstrated in the PR and/or VSI, the SV can be avoided leaving the unit(s)/area(s) to be addressed in the RFI.

   The RFA includes preparing the RFA report. This report includes the findings of the various RFA activities and recommendations for further action at those units and areas with demonstrated releases of hazardous wastes, including hazardous constituents. In some cases, where an immediate threat to human health or the environment exists, interim corrective measures may be required.

If the RFA concludes that there is a need for further investigative work the Permittee shall be required to pursue phase two of corrective action, an RFI. The purpose of the RFI is to determine the nature, extent, direction and rate of migration of hazardous wastes, including hazardous constituents, in soils, groundwater, surface water/sediment, subsurface gas and/or air. From these multimedia analyses, the types and concentrations of contaminants present, the boundaries of any contamination (e.g., plumes), and the rate and direction of contaminant movement should be determined in each of the impacted media. Sufficient data shall be generated during the RFI to allow proper assessment of corrective measure alternatives. This may require bench and/or pilot studies to be implemented as part of the RFI. Once all analyses are reviewed, a RFI report is prepared that provides a summation of the data and recommendations for any needed corrective measures.

The culmination of the Corrective Action Program is Corrective Measures ("CM"). The initial stage of the corrective measures phase is the preparation of a Corrective Measures Study ("CMS"). A CMS may be required if concentrations of hazardous constituents in an aquifer, in surface water/sediment, in soils, or in air exceed their corresponding action levels. Such a study may also be required if individual concentrations of hazardous constituents are at or below their action levels, but they still may pose a threat to human health or the environment due to site-specific exposure conditions. The CMS will address alternative corrective measure strategies that are technologically feasible and reliable and which effectively mitigate and minimize damage to, and provides adequate protection of human health and the environment. The Permittee will develop the site-specific CMS using target clean-up levels chosen by the Commissioner to be protective of human health and the environment. Where available, they may be promulgated standards. Where promulgated standards are not available, the Commissioner may use health-based levels, based on Risk-Specific Doses ("RSD") for carcinogens and Reference Doses ("RFD") for systemic toxicants, or concentration levels protective of the environment, that have undergone scientific review. The CMS report should discuss the alternative corrective measure strategies studied, addressing technical, institutional, public health, and environmental issues, and develop the conceptual engineering for the alternative action proposed by the facility. The CMS may not require extensive evaluation of a number of remedial alternatives where a solution is straight forward or only few solutions exist. Such situations could require the Permittee to submit a highly focused CMS.

Following completion of the CMS, the Commissioner will select the corrective measure(s) from the corrective measure alternatives evaluated in the CMS. The Commissioner will then initiate a Permit modification for the selected corrective measure(s). Subsequent to the Permit modification, the owner or operator of the facility will be required to demonstrate financial assurance for completing the approved corrective measure(s).

Permit modification for the approved corrective measure(s) will initiate the final stage of corrective measures, Corrective Measures Implementation ("CMI"). The CMI will address the final design, construction, operation, maintenance, and monitoring of the corrective measure or measures selected.

3. Solid Waste Management Units and Areas of Concern. The conditions of this Module apply to:

(a) All the SWMUs and AOCs listed in this Module individually or in combinations;

(b) Any additional SWMU(s) and AOCs identified during the course of groundwater monitoring, field investigations, environmental audits or other means as described in Module Condition C. below; and

(c) The following known SWMUs and AOCs are known to exist on-site and/or off-site:

TABLE II-1

Unit No.	Unit Description	Category	Next Step
1	Shooting Pond	SWMU	CMS
2	Burning Cage/Incinerator	SWMU	CMS
3	Copper Wire Burning Area	SWMU	CMS
4	Iron Wire Burning Area	SWMU	CMS
5	Wire Burning Area III	SWMU	CMS
6	Open Burning Pads	SWMU	CMS
7	Open Burning Pads	SWMU	CMS
8	Former Burning Area	SWMU	CMS
9	Waste Powder Catch Basins - Building 2037	SWMU	CMS
10	Waste Powder Catch Basins - Building 2048	SWMU	CMS
11	Waste Powder Catch Basins - Building 2049	SWMU	CMS
12	Waste Powder Catch Basins - Charge and Press Building	SWMU	Inaccessible
13	Former Waste Powder Catch Basins - Lead Azide Building	SWMU	CMS
14	Waste Powder Magazine - Building 9222	SWMU	NFA
15	Waste Powder Magazine - Building 9216	SWMU	NFA
16	Waste Powder Magazine - Building 3002	SWMU	NFA
17	Former Waste Storage Trailer	SWMU	NFA
18	Former Waste Degreaser Storage Building Area	SWMU	NFA
19	New Waste Degreaser Storage Building Area	SWMU	NFA
20	Former Empty Drum Storage Area	SWMU	NFA

Unit No.	Unit Description	Category	Next Step
21	Lead Recycling Unit Area	SWMU	CMS
22	Former Landfill	SWMU	CMS
23	Former Dump	SWMU	CMS
24	Former Wastewater Treatment Facility	SWMU	CMS
25	New Wastewater Treatment Facility	SWMU	NFA
26A	Burnable Waste Satellite Accumulation Areas	SWMU	NFA
26B	Burnable Waste Satellite Accumulation Areas	SWMU	NFA
26C	Burnable Waste Satellite Accumulation Areas	SWMU	NFA
26D	Burnable Waste Satellite Accumulation Areas	SWMU	CMS
26E	Burnable Waste Satellite Accumulation Areas	SWMU	CMS
26F	Burnable Waste Satellite Accumulation Areas	SWMU	NFA
26G	Burnable Waste Satellite Accumulation Areas	SWMU	CMS
27	Sanitary Sewer System	SWMU	CMS
28	Scrap Metal Area	SWMU	NFA
29	Drainage Ditch (Downgrade of Building 2049)	SWMU	CMS
30	Drainage Ditch (Downgrade of Building 2036)	SWMU	CMS
31	Old Well House	SWMU	NFA
32	Old Dump (near water tower)	SWMU	CMS
33	Mercury Fulminate Tanks Area	SWMU	CMS
34	Old Waste Burning Grounds (near Shooting Pond)	SWMU	NFA
35	Stone Fence Dump	SWMU	CMS
36	Pellet House Septic Tank	SWMU	NFA
37	Former Shell Plant Drum Storage Area	SWMU	CMS
38	Grenade Disposal Area	SWMU	NFA
38S	Grenade Disposal Area South	SWMU	CMS
39	Former Wastewater Discharge Area	SWMU	CMS
40	Pilot Line Condensate Collection Sump	SWMU	CMS

Unit No.	Unit Description	Category	Next Step
41	Detonator Production Building Condensate Collection Sump	SWMU	NFA
42	SAC Building Steam Collection Containers	SWMU	CMS
43	Lab Annex Condensate Collection Sump	SWMU	NFA
44	Lead Azide Building Washwater Settling Tank (formally SWMU 13)	SWMU	NFA
45	Washwater Collection Tanks - Building 2009	SWMU	NFA
46	Vacuum Line Condensate Collection Sump - Building 2059 (need conformation samples)	SWMU	CMS
47	Building 2058 Fuse Room	AOC	CMS
48	Mercury Fulminate Area	SWMU	CMS
49	Building 2073 Sump	SWMU	CMS
50	Building 2075 Sump	SWMU	NFA
A	Kerosene Tank Leak	AOC	CMS
B	Open Burning Pads Area	AOC	CMS
C	Open Detonation Pit	AOC	CMS
D	Detonation Test Building	AOC	CMS
E	Former Building 2073	AOC	NFA
F	Building 2075	AOC	NFA

The next step determinations are based on information provided in the RCRA Facility Investigation Report approved by the Department on July 11, 2000 and on the no further action decisions made by the Department on May 2, 1997 and December 15, 1999.

B. STANDARD CONDITIONS FOR CORRECTIVE ACTION

1. Work Plans. All work plans submitted pursuant to this Module shall include:

   (a) Quality Assurance/Quality Control protocols to ensure that data generated is valid and supported by documented procedures;

   (b) Other plans, specifications and protocols, as applicable;

   (c) A schedule for starting specific tasks, completing the work and submitting progress and final reports; and

(d) Plans for the treatment, storage, discharge or disposal of wastes to be generated by activities described therein.

2. Quality Assurance/Quality Control

(a) Any laboratory to be used pursuant to such work plans required by this Module must be approved by the Commissioner prior to work plan implementation. Certification by the New York State Department of Health Environmental Laboratory Approval Program in the relevant analytical services is required.

(b) The minimum Quality Assurance/Quality Control data and information, that shall be delivered with all sample analyses required by this Module, are tabulated in Appendix II-A of this Permit Module.

3. Health/Safety Plans. The Permittee shall develop, according to applicable Federal, State and local requirements, and submit to the Commissioner, health and safety plans that will be implemented to ensure that the health and safety of project personnel, plant personnel and the general public are protected. These plans are not subject to approval by the Commissioner.

4. Guidance Documents. When preparing the submissions described in this Permit Module, the Permittee shall take account of applicable guidance documents issued by the U.S. Environmental protection Agency and the New York State Department of Environmental Conservation in a manner reflecting reasonable technical considerations.

5. Prior Submittals. The Permittee may have already submitted portions of information, plans, or reports required by this Permit Module and its Appendices to the Commissioner pursuant to the terms of previous applications, consent orders, or plans. For those items the Permittee contends were submitted to the Commissioner, the Permittee may cite the specific document(s) and page(s) it believes adequately addresses each of the individual items requested by this Permit Module and its Appendices. The references, by document(s) and page(s), shall be placed in the appropriate sections of the submittals that require the referenced information and data. If the Commissioner, after a file search, determines that it does not possess any of the referenced information, plans, or reports that the Permittee claims were previously submitted, the Commissioner will notify the Permittee and the Permittee shall submit the referenced documents within the time frame specified within the notification. The Department acknowledges receipt of the following documents:

RCRA Facility Assessment Report dated December 1994
Sampling Visit Work Plan dated January 1995
Quality Assurance Project Plan for RFI related Investigation dated January 1995
Interim Corrective Measures Work Plan dated February 1995
Groundwater Investigation Work Plan dated April 1995
Health and Safety Plan for RFI Work dated May 1995

RCRA Facility Assessment Report dated December 1994
Groundwater Investigation Report, Volumes I and II, dated January 1996
Final Work Plan and Site Specific Health and Safety Plan, Determination of Explosive Material in Sediment of the Detonation Pond dated June 1996
RFI Task II Report dated August 1996
Sampling Visit Report dated February 1997
RCRA Facility Investigation Work Plan dated April 1997
RCRA Facility Investigation Report dated December 1999
Documentation of Interim Corrective Measures (ICM) For Explosives dated January 1997

6. Compliance Schedule For Interim Corrective Measures.

(a) If at any time it is determined by the Commissioner that a release or, based on site-specific circumstances, a threatened release of hazardous wastes, including hazardous constituents from a SWMU, a combination of SWMUs, or an AOC poses a threat to human health or the environment, or that such condition jeopardizes the Permittee's ability to comply with any governmental Permit, a draft interim corrective measures study shall be submitted to the Commissioner for approval within thirty (30) calendar days of notice of such a determination. This study shall consider, among other relevant factors, the character, the extent, direction, the rate of release, the proximity to population, the exposure pathways, the effects of delayed action, and the evaluations of appropriate interim corrective measures. Upon approval of the study by the Commissioner, the Permittee shall implement the required interim corrective measures as specified by the Commissioner. Nothing herein shall preclude the Permittee from taking immediate action to address the conditions described herein and promptly notifying the Commissioner.

(b) In the event the Permittee discovers, a release or, based on site-specific circumstances, a threatened release of hazardous waste, including hazardous constituents, from a SWMU, or a combination of SWMUs, that poses a threat to human health or the environment, the Permittee shall identify interim corrective measures to mitigate this threat. The Permittee shall immediately summarize the nature and magnitude of the actual or potential threat and nature of the interim measures being considered and notify the Commissioner. Within thirty (30) calendar days of notifying the Commissioner, the Permittee shall submit to the Commissioner, for approval, an interim corrective measures work plan for the interim measures. The Permittee shall implement the measures specified by the Commissioner. Nothing herein shall preclude the Permittee from taking immediate action to address the conditions described herein and promptly notifying the Commissioner.

(c) The following factors may be considered by the Commissioner or the Permittee in determining the need for interim corrective measures:

(i) Time required to develop and implement a final corrective measure;
(ii) Actual and potential exposure of human and environmental receptors;
(iii) Actual and potential contamination of drinking water supplies and sensitive ecosystems;
(iv) The potential for further degradation of any impacted medium;
(v) Presence of hazardous waste, including hazardous constituents, in containers that may pose a threat of release;
(vi) Presence and concentration of hazardous waste, including hazardous constituents, in soils that have the potential to migrate to groundwater or surface water;
(vii) Weather conditions that may affect the current levels of contamination;
(viii) Risks of fire, explosion, or potential for exposure to hazardous wastes, including hazardous constituents, as a result of an accident or failure of container or handling system; and
(ix) Other situations that may pose threats to human health and the environment.

7. Determination of No Further Action.

(a) Based on the results of an RFI for a particular SWMU, or combination of SWMUs, and/or AOC, and other relevant information, the Permittee may submit an application to the Commissioner for a Permit modification under 6NYCRR 373-1.7(b) and 621.13 to terminate the subsequent corrective action requirements of this Module. This Permit modification application must contain information demonstrating no release(s) of hazardous wastes, including hazardous constituents, from the SWMU(s) and/or AOC(s) that pose a threat to human health or the environment, as well as information required in 6NYCRR 373-1 and 621.4(n), which incorporates by reference 6NYCRR 373-1 and 373-2.

If, based upon review of the Permittee's request for a Permit modification, the results of the RFI, and other information, including comments received during the forty-five (45) calendar day public comment period required for Permit modifications, the Commissioner determines that the release(s) or the suspected release(s) investigated either are non-existent or do not pose a threat to human health or the environment, the Commissioner may grant the requested modification.

(b) A determination of no further action shall not preclude the Commissioner from implementing the following actions:
(i) Modifying this Permit at a later date to require the Permittee to perform such investigations as necessary to comply with the requirements of this Permit Module and its Appendices if new information or subsequent analysis indicates that there are, or are likely to be, releases from SWMUs/AOCs that may pose a threat to human health or the environment; and
(ii) Requiring continual or periodic monitoring of air, soil, groundwater, or surface water/sediment or subsurface gas, if necessary, to protect human health and the environment, when site-specific circumstances indicate the release(s) of hazardous waste, including hazardous constituents, are likely to occur from any SWMU(s) and/or AOC(s).

8. Compliance Schedule For Reporting.

(a) The Permittee shall submit, to the Commissioner, signed progress reports, as specified in approved work plans pursuant to this Permit, of all activities (i.e., SWMU Assessment, Interim Measures, RCRA Facility Investigation, Corrective Measures Study) conducted pursuant to the provisions of the Corrective Action Compliance Schedules of this Permit Module, beginning no later than thirty (30) calendar days after the Permittee is first required to begin implementation of any requirement herein. These reports shall contain:

(i) A description of the work completed during the reporting periods
(ii) Summaries of all findings made during the reporting period, including summaries of laboratory data;
(iii) Summaries of all changes made during the reporting period;
(iv) Summaries of all contacts made with representatives of the local community and public interest groups during the reporting period;
(v) Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;
(vi) Changes in personnel conducting or managing the corrective action activities during the reporting period;
(vii) Projected work for the next reporting period; and
(viii) Copies of daily reports, inspection reports, laboratory/monitoring data, etc., generated during the reporting period.

(b) Upon request, copies of other relevant reports and data not identified in Module Condition B.8.(a) shall be made available to the Commissioner.

(c) The Commissioner may require the Permittee to conduct new or more extensive assessments, investigations, or studies, based upon information provided in the progress reports referred to in Module Condition B.8(a) above, or upon other supporting information.

(d) All plans and schedules required by the conditions of this Permit Module and Appendix II-D are upon approval of the Commissioner, incorporated into this Permit by reference and become an enforceable part of this Permit. Any noncompliance with such approved plans and schedules shall constitute noncompliance with this Permit. Extensions of the due dates for submittals may be granted by the Commissioner in accordance with the Permit modification processes stipulated in Module Condition E.9. of this Permit Module.

9. Compliance with Governmental Requirements. During investigative activities, interim corrective measures, and final corrective measures, (including, but not limited to, equipment decommissioning, excavation and unit demolition) required under this Module, the Permittee shall ensure that the transportation, treatment, storage, discharge, and disposal of all contaminated materials generated as a result of such activities (including, but not limited to, soils, sediments, liquids, tanks, pipes, pumps, rubble, debris, and structural materials) are performed in an environmentally sound manner pursuant to all applicable Federal, State and local requirements and that is protective of public health and the environment. Nothing in this Module shall be construed to require the Permittee to proceed in a manner which is in violation of any such requirements.

(j) Notifications.

(a) Notification of groundwater contamination. If at any time the Permittee discovers that hazardous constituents in groundwater that may have been released from a solid waste management unit or area of concern at the facility have migrated beyond the facility boundary in concentrations that exceed action levels, the Permittee shall, within fifteen (15) calendar days of discovery, provide written notice to the Commissioner and any person who owns or resides on the land which overlies the contaminated groundwater.

(b) Notification of air contamination. If at any time the Permittee discovers that hazardous constituents in air that may have been released from a solid waste management unit or area of concern at the facility have or are migrating to areas beyond the facility boundary in concentrations that exceed action levels, and that residences or other places at which continuous, long-term exposure to such constituents might occur are located within such areas, the Permittee shall, within fifteen (15) calendar days of such discovery;

(i) Provide written notification to the Commissioner, and

(ii) Initiate any actions that may be necessary to provide notice to all individuals who have or may have been subject to such exposure.

(c) Notification of residual contamination. If hazardous wastes or hazardous constituents in solid waste management units or areas of concern, or which have been released from solid waste management units or areas of concern, will remain in or on the land, including groundwater, after the term of the Permit has expired, the Commissioner may require the Permittee to record, in accordance with State law, a notation in the deed to the facility property or in some other instrument which is normally examined during title search that will, in perpetuity, notify any potential purchaser of the property of the types, concentrations, and locations of such hazardous wastes or hazardous constituents. The Commissioner may require such notice as part of the corrective measures selection process.

C. **COMPLIANCE SCHEDULE FOR ASSESSMENT OF NEWLY IDENTIFIED SWMUS AND AOCS.**

1. Notification of Assessment. The Permittee shall notify the Commissioner, in writing, of any additional SWMU(s) and/or AOC(s) not listed in this Module, which are identified during the course of groundwater monitoring, field investigations, environmental audits, or other means within fifteen (15) calendar days after discovery.

2. SWMU/AOC Assessment Report. Within thirty (30) calendar days after notifying the Commissioner, the Permittee shall submit a SWMU/AOC Assessment Report. This Report must provide, at a minimum, the following information for each newly identified SWMU/AOC:

   (a) Type of unit/area;

   (b) Location of each unit/area on a topographic map of appropriate scale;

   (c) Dimensions, capacities, and structural descriptions of the unit/area (supply available engineering drawings);

   (d) Function of unit/area;

   (e) Dates that the unit/area was operated;

   (f) Description of the wastes that were placed or spilled at the unit/area;

   (g) Description of any known releases from the unit/area (to include groundwater data, soil analyses, air monitoring data, and/or surface water/sediment data);

   (h) The results of any sampling and analysis required for the purpose of determining whether releases of hazardous wastes, including hazardous constituents, have occurred, are occurring, or are likely to occur from the unit/area; and

   (i) Whether this unit/areas, individually or in combination with other units/areas described in Module Condition A.3. is a significant source of contaminant release.

3. SWMU/AOC Sampling and Analysis Plan. Within thirty (30) calendar days after submittal of the SWMU/AOC Assessment Report required in Module Condition C.2., the Permittee shall submit to the Commissioner for approval a Plan in accordance with the most recent version of the NYS RCRA Quality Assurance Project Plan Guidance, for any sampling and analysis of groundwater, land surface and subsurface strata, surface water/sediment or air, as necessary to determine whether a release of hazardous waste, including hazardous constituents, from such unit(s) and/or area(s) has occurred, is likely to have occurred, or is likely to occur. The SWMU/AOC Sampling and Analysis Plan must demonstrate that the sampling and analyses program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste, including hazardous constituents, from the newly-discovered SWMU(s) and/or AOC(s) to the environment.

4. Subsequent Assessment Actions. Following submission of the SWMU/AOC Assessment Sampling and Analysis Plan set forth in Module Condition C.3., subsequent activities for the Plan shall proceed in accordance with the following schedule:

   (a) Meeting between the Permittee, the U.S. Environmental Protection Agency (Agency) and the New York State Department of Environmental Conservation (Department) to discuss Plan comments, as appropriate; and

   (b) Submission of a revised Plan to the Commissioner for approval within thirty (30) calendar days of the above-described meeting. (If the above referenced meeting is determined not to be necessary, the Permittee shall submit a revised Plan to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Plan comments from the Commissioner); and

   (c) Begin implementation of the SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days following written approval from the Commissioner for the Plan.

5. SWMU/AOC Sampling and Analysis Report. Within thirty (30) calendar days of receipt by the Permittee of validated analytical data generated under the approved SWMU/AOC Sampling and Analysis Plan, the Permittee shall follow reporting requirements in the approved Plan and submit a SWMU/AOC Sampling and Analysis Report to the Commissioner. The Report shall describe all results obtained from the implementation of the approved Plan.

6. Assessment Conclusions. Based on the results of the SWMU/AOC Sampling and Analysis Report, the Commissioner shall determine the need for further investigations at the specific unit(s) covered in the SWMU/AOC Assessment Report. If the Commissioner determines that such investigations are needed, the Commissioner shall, by written notification, require the Permittee to prepare and submit for approval a RCRA Facility Investigation Work Plan, including a schedule for the Plan's implementation.

D. COMPLIANCE SCHEDULE AND NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMUS AND AOCS.

The Permittee shall notify the Commissioner, in writing, of any release(s) of hazardous wastes, including hazardous constituents, discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities no later than fifteen (15) calendar days after discovery. Such newly-discovered release(s) may be from the newly-identified unit(s)/area(s), from the unit(s)/area(s) for which, based on the findings of the RFA, the Commissioner had previously determined that no further investigation was necessary, or from the unit(s)/area(s) investigated as part of an RFI. Based on the information provided in the notification, the Commissioner shall determine the need for further investigation of the release(s). If the Commissioner determines that such investigations are needed, the Commissioner shall, by written notification, require the Permittee to prepare a RCRA Facility Investigation Work Plan, including a schedule for the Plan's implementation.

E. CORRECTIVE ACTION REQUIREMENTS.

1. No Action Requirement.

(a) On the basis of the RCRA Facility Assessment Report dated December 1994, the Commissioner has determined that there is no evidence at this time of the release(s) of hazardous waste(s) and/or constituent(s) that threaten human health or the environment from the following SWMU(s) and/or AOC(s) identified in Module Condition A.3 as:

Unit Numbers 14, 15, 16, 17, 18, 19, 20, 25, 26A, 26B, 26C, 26F, 28, 31, 34, 36, 38, 41, 43, 44, 45, 50, E and F.

(b) The Permittee need not undertake corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in Module Condition E.1.(a) as long as there is no evidence of the release(s) of hazardous waste(s) or constituent(s) from the SWMU(s) and/or AOC(s) threatening human health or the environment. This Permit condition does not apply to any other stipulation specified in other Modules or Conditions of this Permit.

(c) A determination of no further action shall not preclude the Commissioner from modifying this Permit at a later date to require further investigations, studies, monitoring, or corrective measures, if new information or subsequent analysis indicates the release(s) or likelihood of release(s) from SWMU(s) and/or AOC(s) identified in Module Condition E.1.(a) that could pose a threat to human health or the environment.

2. Compliance Schedule For RCRA Facility Investigation ("RFI") Work Plan.

(a) On the basis of the RCRA Facility Assessment Report dated December 1994 as revised, the Commissioner has determined that there has been a release of hazardous waste and/or constituents from the following inaccessible SWMU(s) and/or AOC(s) identified in Module Condition A.3. as:

Unit Number 12 - Waste Powder Catch Basins in the Charge and Press Building

(b) The Permittee shall submit to the Commissioner for approval a RCRA Facility Investigation Task I Report on Current Conditions, a Task II Report on Pre-Investigation Evaluation of Corrective Measures Technologies, and a Work Plan that meets the RFI Scope of Work included in Appendix II-B for the inaccessible SWMU(s) and/or AOC(s) identified in Module Condition E.2.(a) no later than one-hundred and eighty (180) calendar days prior to the date when the SWMU(s) and/or AOC(s) become accessible for such an investigation. The RFI Work Plan shall be prepared in accordance with the provisions of Module Conditions E.2.(b)(i) through (iv). Accessibility to the SWMU(s) and/or AOC(s) shall be considered achievable when the impediment to the RFI (e.g. building, utilities) is demolished, abandoned, or to be altered in a manner that would allow access to the SWMU(s) and/or AOC(s).

(i) The Work Plan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the nature, direction, rate, movement, and concentration of releases of hazardous

waste, including hazardous constituents, from specific units or groups of units and areas, and their actual or potential receptors. The Work Plan shall detail all proposed activities and procedures to be conducted at the facility and/or off-site, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the RFI.

(ii) The Work Plan shall discuss sampling and data collection quality assurance and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures.

(iii) The Work Plan must, at a minimum, address all necessary activities or include descriptions to meet the requirements specified in Tasks III through V of the Scope of Work for a RCRA Facility Investigation included in Appendix II-B and its attachments to this Permit Module.

(iv) The Permittee may determine that any of the items required by Tasks III through V of the Scope of Work in Appendix II-B of this Permit Module have already been submitted or completed, and therefore, the resubmittal of those items are not necessary for completing the RFI of this Permit. The Permittee shall request, within thirty (30) calendar days of the effective date of this Permit, and/or within thirty (30) calendar days of any notification by the Commissioner that an RFI is required that the Commissioner review for approval the Permittee's determination. At the time of the request, the Permittee must provide the following information: (1) description of the items and/or summary of findings; (2) description of investigations addressing the items, documents/reports of the investigations with dates, and summary of the findings; and (3) copies of the documents/reports.

Upon the Commissioner's approval of any previously performed items, the Permittee may delete these from the RFI Work Plan. However, upon disapproval of items, all activities necessary for the items must be included in the RFI Work Plan.

(c) Following submission of the RFI Work Plan set forth in Module Condition E.2.(b), subsequent activities for the Plan shall proceed in accordance with the following schedule:

(i) Meeting between the Permittee and the Department to discuss Plan comments, as appropriate; and

(ii) Submission of a revised Plan to the Commissioner for approval within thirty (30) calendar days of the above-described meeting. (If the above-referenced meeting is determined not to be necessary, the Permittee shall submit a revised Plan to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Plan comments from the Commissioner).

(d) The Commissioner shall review, for approval as part of the RFI Work Plan, any plans developed pursuant to Module Condition C.6, addressing further investigations of newly-identified SWMUs and/or AOCs, or Module Condition D, addressing newly discovered releases from units and/or areas. The Commissioner shall modify the Compliance Schedule of this Permit Module according to the Permit modification procedures stipulated in Module

Condition E.9. of this Permit Module to incorporate these units and areas and releases into the RFI Work Plan.

3. Compliance Schedule For RFI Work Plan Implementation. No later than thirty (30) calendar days after written notification by the Commissioner approving any RFI Work Plan, the Permittee shall begin implementation of the RFI according to the schedules specified in the RFI Work Plan. The RFI shall be conducted in accordance with the approved RFI Work Plan.

4. Compliance Schedule For RFI Final Report And Summary Report

   (a) Within sixty (60) calendar days of receipt by the Permittee of validated analytical data generated under the approved RFI Work Plan, the Permittee shall submit to the Commissioner for approval the RFI Final and Summary Reports (Task VII of the Scope of Work for an RFI in Appendix II-B of this Permit Module). The RFI Final Report must contain adequate information to support further corrective action decisions at the facility and/or off-site, should such actions be necessary. The RFI Final Report shall describe the procedures, methods, and results of all facility investigations of SWMUs and AOCs and their releases, including information on the type and extent of contamination at the facility and/or off-site, sources and migration pathways, and actual or potential receptors. It shall present all information gathered under the approved RFI Work Plan. The RFI final report will include a comparison of media specific hazardous constituents with their corresponding action levels. The Summary Report shall describe more briefly the procedures, methods, and results of the RFI.

   (b) Following submission of the Reports set forth in Module Condition E.4.(a), subsequent activities for the Report shall proceed in accordance with the following schedule:
      (i) Meeting between the Permittee and the Department to discuss Report comments, as appropriate; and
      (ii) Submission of a revised Report to the Commissioner for approval within forty-five (45) calendar days of the above-described meeting. (If the above-referenced meeting is determined not to be necessary, the Permittee shall submit a revised Report to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Report comments from the Commissioner).

   (c) After the Commissioner approves the RFI Final Report and Summary Report, the Permittee shall mail the approved Summary Report to all individuals on the facility mailing list established by the Permittee, within thirty (30) calendar days of receipt of approval.

   (d) A report summarizing the testing program required by Task VI of the Scope of Work for RFI in Appendix II-B of this Permit Module shall be submitted, as a separate document, at the same time as the RFI Final Report.

5. Compliance Schedule For Corrective Measures Study ("CMS") Scope of Work.

(a) Should a CMS be required, the Commissioner shall notify the Permittee in writing. This notice shall identify the hazardous constituent(s) which have exceeded the action level(s) as well as those which have been determined to threaten human health and the environment given site-specific exposure conditions or due to additive exposure risk. The notification shall specify target cleanup levels for hazardous constituents detected in each medium of concern, and may also specify corrective measure alternatives to be evaluated by the Permittee during the CMS.

(b) The Commissioner may require a Corrective Measures Study ("CMS") under the following conditions:

(i) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air exceed their corresponding individual action levels; or

(ii) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air do not exceed their corresponding individual action levels, but additive exposure risk due to the presence of multiple constituents is not protective of human health; or

(iii) If the concentrations of hazardous constituent in groundwater, surface water/sediment, soil, or air do not exceed corresponding individual action levels, but still pose a threat to human health or the environment, given site-specific exposure conditions.

(c) The Commissioner has determined that a Corrective Measures Study must be prepared by the Permittee addressing corrective measure alternatives for the following designated SWMU(s) and/or AOC(s) identified in Table I of Module Condition A.3 as:

Unit Numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 21, 22, 23, 24, 25, 26D, 26E, 26G, 29, 30, 32, 33, 35, 37, 38S, 39, 40, 42, 46, 47, 48, A, B, C & D.

(d) The CMS will be considered complete upon completion of Tasks I through IV required by the CMS Scope of Work included in Appendix II-C of this Permit Module.

6. Compliance Schedule For Corrective Measures Study Final Report.

(a) On or before December 29, 2000 the Permittee shall submit to the Commissioner for approval a CMS Final Report (Task IV) that addresses the SWMUs and AOCs identified by Unit Numbers in Module Condition E.5.(c). The CMS Final Report shall:

(i) Summarize the results of the investigations and, if applicable, of any bench-scale or pilot tests conducted;

(ii) Provide a detailed description of the corrective measures evaluated and include an evaluation of how each corrective measure alternative meets the standards set forth in Module Condition E.7.(a). ,and

(iii) Contain any additional information to support the Commissioner in the corrective measure selection decision-making process, described under Module Condition E.7.

(b) The CMS Final Report (Task IV) must address, at a minimum, all items necessary to demonstrate completion of Tasks II and III required by the CMS Scope of Work included in Appendix II-C of this Permit Module.

(c) Following submission of the CMS Report set forth in Module Condition E.6.(a), subsequent activities for the Report shall proceed in accordance with the following schedule:

(i) Meeting between the Permittee and the Department to discuss the Report comments, as appropriate; and

(ii) Submission of a revised Report to the Commissioner for approval within thirty (30) calendar days of the above-described meeting. (If the above referenced meeting is determined not to be necessary the Permittee shall submit a revised Report to the Commissioner, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Report comments from the Commissioner.)

(d) As specified under Module Condition E.5.(a), based on preliminary results and the CMS Final Report, the Commissioner may require the Permittee to evaluate additional corrective measures or particular elements of one or more proposed corrective measures.

7. Corrective Measure(s) Selection.

(a) Based on the results of the documents submitted under Module Condition E.2. for the RFI, under Module Condition E.6. for the CMS, and any further evaluations of additional corrective measures under this study, the Commissioner shall select the corrective measure(s) that at a minimum will meet the following standards:

(i) Be protective of human health and the environment;

(ii) Attain media cleanup standards selected by the Commissioner during the corrective measures selection process;

(iii) Control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases of hazardous waste, including hazardous constituents, that might pose a threat to human health and the environment; and

(iv) Meet all applicable waste management requirements.

(b) In selecting the corrective measure(s) which meets the standards for corrective measures established under Module Condition E.7.(a), the Commissioner shall consider the following evaluation factors, as appropriate:

(i) Long-term reliability and effectiveness. Any potential corrective measure(s) may be assessed for the long-term reliability and effectiveness it affords, along with the degree of certainty that the corrective measure(s) will prove successful. Factors that shall be considered in this evaluation include:

S Magnitude of residual risks in terms of amounts and concentrations of hazardous waste, including hazardous constituents, remaining following implementation of the corrective measure(s), considering the

persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents:

(2) The type and degree of long-term management required, including monitoring and operation and maintenance;

(3) Potential for exposure of humans and environmental receptors to remaining hazardous wastes, including hazardous constituents, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal or containment;

(4) Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated hazardous wastes, including hazardous constituents, and their residuals; and

(5) Potential need for replacement of the corrective measure(s).

(ii) Reduction of toxicity, mobility or volume. A potential corrective measure(s) may be assessed as to the degree to which it employs treatment that reduces toxicity, mobility or volume of hazardous wastes, including hazardous constituents. Factors that shall be considered in such assessments include:

(a) The treatment processes the corrective measure(s) employs and materials it would treat;

(2) The amount of hazardous wastes, including hazardous constituents, that would be destroyed or treated;

(3) The degree to which the treatment is irreversible;

(iv) The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents; and

(5) All concentration levels of hazardous waste, including hazardous constituents, in each medium that the corrective measure(s) must achieve to be protective of human health and the environment.

(iii) The short-term effectiveness of a potential corrective measure(s) may be assessed considering the following:

(1) Magnitude of reduction of existing risks;

(b) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a corrective measure(s), including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment; and

3. Time until full protection is achieved.

(iv) Implementability. The ease or difficulty of implementing a potential corrective measure(s) may be assessed by considering the following types of factors:

1. Degree of difficulty associated with constructing the technology;

(2) Expected operational reliability of the technologies;

(3) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(4) Availability of necessary equipment and specialists;

(5) Available capacity and location of needed treatment, storage and disposal services; and

(6) Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s).

(v) Cost. The types of costs that may be assessed include the following:

(1) Capital costs;

(2) Operation and maintenance costs;

(3) Net present value of capital and operation and maintenance costs; and

(4) Potential future corrective measure costs.

8. Permit Modification for Corrective Measure(s).

(a) Based on information the Permittee submits in the RFI and Summary Reports, under Module Condition E.2, the CMS Final Report under Module Condition E.6., and other information, the Commissioner will select the corrective measure(s) and initiate a Permit modification to this Permit, pursuant to 6NYCRR 373-1.7(b) and 6NYCRR 621.14. The modification will specify the selected corrective measure(s) and include, at a minimum the following:

(i) Description of all technical features of the corrective measure(s) that are necessary for achieving the standards for corrective measures established under Module Condition E.7.(a), including length of time for which compliance must be demonstrated at specified points of compliance;

(ii) All media cleanup standards for hazardous constituents, selected by the Commissioner, that the corrective measure(s) must achieve to be protective of human health and the environment;

(iii) All requirements for achieving compliance with these cleanup standards;

(iv) All requirements for complying with the standards for management of wastes;

(v) Requirements for removal, decontamination, closure or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s);

(vi) A schedule for initiating and completing all major technical features and milestones of the corrective measure(s); and

(vii) Requirements for submission of reports and other information.

(b) Within thirty (30) calendar days after this Permit has been modified, the Permittee shall demonstrate in writing to the Commissioner financial assurance for completing the approved corrective measures.

9. Modification of the Compliance Schedules.

(a) If at any time the Permittee determines that modification of any Compliance Schedule of this Permit Module, including Appendix II-D, is necessary because such schedules cannot be met, the Permittee must:

(i) Notify the Commissioner in writing within fifteen (15) calendar days of such determination; and

(ii) Provide an explanation why the current schedule cannot be met.

(b) The Commissioner shall notify the Permittee in writing of the final decision regarding the Permittee's proposed modification to the Compliance Schedule.

(c) Modifications to the Compliance Schedule pursuant to this procedure does not constitute a reissuance of this Permit. However, any modification to extend a final compliance date will be considered a major permit modification and will be processed pursuant to 6 NYCRR Part 621 as required by 6 NYCRR Subpart 373-1.7(b) and 373-1.7(d)(1)(i).

(d) All other modifications to this Permit Module must be made in accordance with Module I of this Permit.

A. AUTHORIZED OPERATION OF THE DETONATION CHAMBER FOR THE DEACTIVATION OF OFF-SPECIFICATION EXPLOSIVE DEVICES

The Permittee may operate the "Detonation Chamber and all associated equipment and appurtenances including the air pollution control equipment" (hereinafter referred to as the "Detonation Chamber") at the facility for the treatment of off-specification explosive devices (a detonator or partial assembly thereof) subject to the terms of this Permit. The treatment consists of the detonation of the explosive devices within the Detonation Chamber to deactivate the reactivity characteristic (D003). Only wastes with Waste Code D003 may be treated in this unit, although Waste Codes D005, D007, and D008 may also be applicable to the waste.

The Permittee will maintain and operate the Detonation Chamber in conformance with this Permit, the Permit Application, and all applicable regulations, and in a manner to ensure protection of human health and the environment. The Permittee must comply with 6NYCRR 373-2.24 as cited below, other applicable portions of 373-2 and with the portions of the Permit Application incorporated by reference into this Permit. The Permittee must also meet all applicable BATF requirements.

B. ENVIRONMENTAL PERFORMANCE STANDARDS 6NYCRR 373-2.24(b)

The Detonation Chamber Facility must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. The Permittee must adhere to the requirements of Description of Treatment Unit, Part X, Section II, A3 and Air Quality Assessments, Part X, Section III-C in the Permit Application.

The Permittee must operate the Detonation Chamber Facility in conformance with applicable requirements of 6NYCRR 373-2.24, with particular attention to applicable portions of the Subsections cited below:

1. 6 NYCRR 373-2.24(b)(2) - Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in surface water, or wetlands or on the soil surface considering:
   (a) the volume and physical and chemical characteristics of the waste in the unit;
   (b) the effectiveness and reliability of containing, confining, and collecting systems and structures in preventing migration; and
   (c) the potential for health risks caused by human exposure to waste constituents.

2. 6 NYCRR 373-2.24(b)(3) - Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:
   (a) the volume and physical characteristics of the waste in the unit, including its potential for the emission and dispersal of gasses, aerosols and particulate;
   (b) the effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;
   (c) the operating characteristics of the unit;

3. 6 NYCRR 373-2.24(c) - Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies must ensure compliance with subdivisions 373-2.24(b), 373-2.2(g) [General Inspection Requirements], 373-2.3(d) [Testing & Maintenance of Equipment], 373-2.5(e), (f) and (g) [Annual & Other Reporting], and 373-2.6(l) [Corrective Action] as well as meet any additional requirements needed to protect human health and the environment as specified in the Permit.

C. OPERATIONAL PARAMETERS

The Permittee shall operate the Detonation Chamber following the operational procedures listed below in addition to the procedures in the Permit Application. The Permittee must monitor and document compliance with these procedures and parameters.

Treatability testing and trials must be conducted consistent with the requirements of the Interim Status Approval letter of February 18, 1998, Enclosure A and Enclosure B and Detonation Chamber Startup Schedule, July 31, 1998 or subsequent procedures accepted by the Department.

1. The waste managed in the Detonation Chamber shall be limited to off-specification explosive devices (a detonator or partial assembly thereof) which were produced at the Port Ewen facility.

2. No more than 500 off-specification explosive devices, in addition to the initiating device or devices, can be deactivated in the Chamber during each detonation. The net weight of the explosive content of High Explosive, which is explosive material which can be caused to detonate by means of a blasting cap when unconfined (e.g., DDNP, Lead Azide), must not exceed 1 lb. for each detonation.

3. No more than 2000 off- specification devices (up to 4 pounds of High Explosive) shall be detonated in any one hour. No more than 4 detonations shall occur in any one hour.

4. The containment system underlying the Detonation Chamber shall be maintained free of open cracks or gaps to ensure containment of any leaks or spills of contaminated material from the operation.

5. The Permittee must comply with the Air Pollution Control Permit, Permit ID 3-5122-00042/00160 for the Detonation Chamber.

6. Facility health and safety requirements shall be adhered to by all personnel involved in the operation of the Detonation Chamber. Other regulatory Federal OSHA requirements such as Federal OSHA requirements are not superceded by this Permit.

7. Facility training requirements, satisfying Federal OSHA regulations, the Permit Application and the Permittee's Standard Operating Procedures (SOPs), shall be adhered to by all personnel involved in the operation of the Detonation Chamber.

8. Inspection, testing, calibration and maintenance procedures for the Detonation Chamber shall be performed as prescribed in this Permit, the Permit Application and the Permittee's SOPs.

9. The Detonation Chamber steel temperature shall be greater than 55° F, inside and outside, before operation.

10. The temperature at the base of the blast tube and surrounding area shall be monitored after each detonation. If a temperature greater than 140° F is detected, operation will be discontinued until all temperatures are less than 140° F.

11. The Detonation Chamber exhaust system when purging the chamber; (i.e., exhausting the products of a detonation) shall be operated at a minimum exhaust flow rate of 350 cfm.

12. A vacuum of 19 - 22 inches of Hg must be achieved in the Detonation Chamber just prior to each detonation.

13. Reporting and Recordkeeping Requirements:

    (a) All monitoring, testing, calibration, analytical data, inspections, maintenance and response requirements performed to meet the Permit Application and the Permittee's SOPs for the Detonation Chamber shall be reported in the facility operating record.

    (b) All records shall include, at a minimum: date, time, person(s) operating facility, results, deficiencies, actions taken including date and time of action(s) and statement of corrected condition.

    (c) The Permittee must maintain a Record of Performance and Disposal which includes the Detonator Packet I.D. #, date, time and charge amount.

14. All residues and wastes generated from the Detonation Chamber shall be managed as hazardous wastes unless paragraph 371.1(d)(4) of this Title applies.

15. The Permittee must mark the Detonation Chamber with the words "Hazardous Waste."

D. SCHEDULES OF COMPLIANCE

1. The Permittee must complete and document completion of all the requirements stipulated in the Interim Status Approval letter from Rodney L. Aldrich, P.E. dated February 18, 1998, including the requirements of both Enclosure A and Enclosure B which remain in effect and have been incorporated into this Permit by reference in Module I, within one year from the effective date of this Permit. If the requirements of the Interim Status Approval are not completed within one year, the Permittee must obtain a written approval from the Department prior to continuation under the Interim Status Approval.

2. The Permittee shall continue to operate the Detonation Chamber pursuant to the Detonation Chamber Startup Schedule dated July 31, 1998. The Permittee may submit a revised plan to

the Department for review and approval. Operation under the present or revised start-up plans is limited to one year from the effective date of this Permit. The Permittee may make a request to the Department for an extension provision to continue operations under an approved startup plan for a specified limited period. Within 60 days of completion of the steps of the approved startup plan, The Permittee must submit to the Department for review and approval a plan with the proposed long term operating conditions, including the results of treatability studies for various types of detonators and their subassemblies.

3. The Permittee must also complete the Phase II Test Plan for Air Emission Assessment, Dyno Nobel Inc., Detonation Chamber, May 1998 within one year of the effective date of this Permit. The Permittee may make a request to the Department to extend the due date to be the same as that in any approved extension received pursuant to (1) above.

4. The Detonation Chamber and its underlying containment system must be inspected and certified by a New York registered Professional Engineer to meet the requirements of 373-2, the Permit Application and this Permit including being structurally sound and crack free after every 1000 shots but not to exceed 3 years between inspections. The engineer must be qualified to evaluate the condition of the Detonation Chamber and containment system. The Detonation Chamber and containment system must be inspected for cracks, failures, weld deterioration, corrosion, and any other defects which may impair their safety and effectiveness. The engineer will prepare a detailed report which specifies the nature and content of the inspection, observations made, details of any defects found (including photographs, if needed to fully describe the defects), evaluate the adequacy of any repairs made during the year, provide details of any remedial action taken (including methods, procedures, and material specifications) and certify that all repairs made in response to the inspections were made in accordance with descriptions contained within the report. The report and specification will be submitted to the Department. The frequency of subsequent inspections and maintenance will be determined by the Department based upon the results of the initial inspection.

E. INSPECTIONS 6NYCRR 373-2.2(g)

The Permittee must inspect Detonation Chamber pursuant to the Permit Application and the following:

1. The Permittee must inspect the Detonation Chamber at least once each operating day to detect erosion, corrosion or releases of waste and to evaluate data gathered from monitoring and leak detection equipment (e.g., vacuum or temperature gauges) to ensure that the Detonation Chamber is being operated according to its design.

2. The filters in the Filter System Housing must be inspected weekly and the condition recorded in the operating log.

3. The piping for the vacuum system and that for the exhaust system, the vacuum system and the Filter System Housing must be inspected monthly and the condition recorded in the operating log. The accumulation of reactive material not on filter elements; (e.g., in piping, in the vacuum system or any where in the Filter System Housing) shall be immediately reported to the

Department and the Detonation Chamber taken out of service until the source has been determined and a remedy effected.

4. The Permittee must document all inspections in the operating record for the facility.

5. The Permittee must remedy any deterioration or malfunction found per (373-2.2(g)(3)). If the Detonation Chamber is found through inspection to be unfit for use, the Detonation Chamber must be removed from service immediately. All repairs to the Detonation Chamber must be documented in the operating record of the facility. The Permittee must notify the Department in writing of any extensive repairs to the Detonation Chamber and the Detonation Chamber must not be returned to service until approved by the Department.

6. The Permittee must maintain a minimum aisle space of 20 inches around the Detonation Chamber Support Assembly and allow for the unobstructed movement of personnel to perform inspections.

F. SPECIAL REQUIREMENTS FOR IGNITABLE, REACTIVE OR INCOMPATIBLE WASTES 6NYCRR 373-2.2(i)

The Permittee must comply with 6NYCRR 373-2.2(i), with particular attention to the reactive waste requirements. Ignitable wastes, incompatible wastes, or incompatible wastes and materials, must not be placed in the Detonation Chamber.

G. CLOSURE 6NYCRR 373-2.7

The Permittee must comply with the Closure Plan incorporated into this Permit pursuant to Module I. At closure, all hazardous waste and hazardous waste residues must be removed from the Detonation Chamber. The Permittee must remove or decontaminate all waste residues and contaminated system components, soils, structures and equipment, and manage them as hazardous waste, unless paragraph 371.1(d)(4) of this Title applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility must meet all of the requirements specified in 6NYCRR 373-2.7 and 2.8 and Module I of this Permit.

H. AIR EMISSION STANDARDS 6NYCRR 373-2.27, 373-2.28 and 373-2.29

The Permittee must operate in conformance with all applicable requirements of 6NYCRR 373-2.27, 373-2.28 and 373-2.29.

I. RESPONSE TO RELEASE OR SPILLS

If there is a release or spill from the Detonation Chamber, the Detonation Chamber must be removed from service immediately.

1. Any release to the environment, except as provided in (ii) below, must be reported to the Commissioner within 24 hours of its detection. If the release has been reported pursuant to 6 NYCRR Part 595, that report will satisfy this requirement. (Note: Use the Department spill

hotline number (800) 457-7362; or from outside of New York State (518) 457-7362; or any designated telephone numbers which may subsequently replace those listed above. Also, see requirements in Module I, Section G., Oral Reports.)

2. A leak or spill of hazardous waste is exempted from the requirements of (1) if it is:
   (a) less than or equal to a quantity of one pound; and
   (b) immediately contained and cleaned-up.

3. Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Commissioner:
   (a) likely route of migration of the release;
   (b) characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
   (c) results of any monitoring or sampling conducted in connection with the releases (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the commissioner as soon as they become available;
   (d) proximity to downgradient drinking water, surface water, and populated areas; and
   (e) description of response actions taken or planned.

4. If the spill is over the 6NYCRR Part 596 "Reportable Quantity," it must be reported to the Department within 2 hours of discovery unless the spill can be completely contained and cleaned up within 24 hours.

PART 373 PERMIT
MODULE III - STORAGE IN CONTAINERS

A. AUTHORIZED STORAGE AREA, WASTE TYPES AND STORAGE VOLUME

The Permittee may operate the following container storage areas at the facility and store the following wastes in containers in these areas up to the volumes listed, subject to the terms of this Permit:

STORAGE AREA NAME & LOCATION[1]	WASTE TYPE & WASTE CODE	VOLUME OF WASTE STORED[5]
Magazine A Bldg. No. 9207	Off-spec. devices[2], off-spec. detonators, testing debris, off-spec. pyrotechnic delay powders, contaminated solid waste & spent filters (D003, D005, D007, D008, K044 - K046)	90,000 lbs. Total[4] 9,000 lbs. High[3]
Magazine B Bldg. No. 9208	Off-spec. devices[2], off-spec. detonators, testing debris, off-spec. pyrotechnic delay powders, contaminated solid waste & spent filters (D003, D005, D007, D008, K044 - K046)	40,000 lbs. Total[4] 2,000 lbs. High[3]
Magazine C Bldg. No. 9209	Off-spec. devices[2], off-spec. detonators, testing debris, off-spec. pyrotechnic delay powders, contaminated solid waste & spent filters (D003, D005, D007, D008, K044 - K046)	40,000 lbs. Total[4] 2,000 lbs. High[3]
Magazine F Bldg. No. 9219	Off-spec. devices[2], off-spec. detonators, testing debris, off-spec. pyrotechnic delay powders, contaminated solid waste & spent filters (D003, D005, D007, D008, K044 - K046)	100,000 lbs. Total[4] 9,000 lbs. High[3]
LA Magazine Bldg. No. 3002	Off spec. pyrotechnic delay (fuse) powders, contaminated solid waste & spent filters (D003, D005, D007, D008 K044 - K046)	500 lbs. Total 5 lbs. High[3]
Powder Storage Building Bldg. No. 2037	Wastewater sludge from explosive manufacturing and/or off spec. pyrotechnic delay powders (D003, D005, D007, D008 & K044 - K046)	500 lbs. Total 500 lbs. High[3]
Liquid Chemical Storage Bldg. No. 3016	Spent solvents, acids & caustics, contaminated oils, contaminated water and similar wastes containing free liquids (D001, D002, D005, D007 & D008)	3,000 gallons Total in containers
Lab Annex Bldg. No. 8111	Off-spec. devices[2], testing debris, off-spec. pyrotechnic delay powders, contaminated solid waste & spent filters (D003 D005, D007, D008 & K044 - K046). Spent solvents, acids & caustics, contaminated oils, contaminated water and similar wastes containing free liquids (D001, D002, D005, D007 & D008)	4,000 lbs. Total 400 lbs. High[3] 250 gallons Total in containers
Detonation Chamber Exterior Steel Magazine	Off-spec detonators (D003, D005, D007 & D008)	75 lbs. Total 30 lbs. High[3]

1. Hazardous waste will be stored in Dyno Nobel and/or DOT approved containers as specified in the application.
2. Off-specification devices consist of fuses (sleeves), ignition elements (plugs, T-elements) and partially assembled detonators.
3. Represents net weight (in pounds) of the explosive content of High Explosive, which is explosive material which can be caused to detonate by means of a blasting cap when unconfined (e.g., DDNP, Lead Azide).
4. The maximum total quantity of waste stored in Magazines A, B, C and F shall not exceed 140,000 pounds combined.
5. The Permittee must maintain an up-to-date log showing the actual quantity of waste in each container in each storage area. If the log is not up-to-date, for the purposes of calculating the volume of waste in a storage area under this Permit, all containers in the area will be considered as full.

The Permittee must comply with 6NYCRR 373-2.9 as cited below and with the portions of the Permit Application incorporated by reference into this Permit. The Permittee must also meet all applicable BATF requirements.

B. CONTAINMENT 6NYCRR 373-2.9(f)

Container storage areas must have a containment system that is designed, constructed, maintained and operated as specified in Subsection D-1(a) of the Permit Application.

1. All containers holding waste with free liquids must be stored within a containment system meeting the following:

(a) A base must underlay the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(b) The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.

(c) The containment system must have sufficient capacity to contain the volume of the largest container or 10 percent of the total volume of containers, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.

In the magazines without secondary containment Dyno Nobel will place each plastic bucket containing a metal paint can that contains liquid waste or wastes stored in liquid into a pan sized to contain the volume of the waste. The pan will function as secondary containment. Routine inspection of the exterior of a plastic bucket in the pan will insure containment. These containment pans shall not be used on shelving above six feet from the floor. For larger containers with free liquid secondary containment must be provided by the use of either a larger container such as an overpack or a containment pallet.

(d) Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in B.(c) above to contain any run-on which might enter the system.

(e) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

2. The Liquid Chemical Storage Bldg. No. 3016 has secondary containment in the form of a concrete slab with curbs (also see Condition K of this Module). In the Lab Annex, secondary containment must be provided in the form of containment pallets for any containers containing free liquid

and for any transfer operation involving free liquid. Liquid waste may only be stored in the Liquid Chemical Storage, Bldg. No. 3016, Magazine A, Bldg. No. 9207, Magazine B, Bldg. No. 9208, Magazine C, Bldg. No. 9029 and the Lab Annex, Bldg. No. 8111 and such waste are typically stored in 5, 30 or 55 gallon DOT containers. Other containers approved by Dyno Nobel maybe used at the facility.

3. In Magazines A, B, C, and F, the LA Mag. and the Lab Annex, containers containing wastes with free liquids may be stored having secondary containment provided by placing the waste container into a larger vessel (e.g., 1-gallon pail of waste into a 2-gallon plastic bucket). Waste solids stored under wet conditions are placed into anti-static plastic bags (typically 5 or 10-gallons) which are taped closed and placed in sorbent material in a Drum lined with a large anti-static bag which is also taped close.

C. CONDITION OF CONTAINERS 6NYCRR 373-2.9(b)

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects, deterioration of liner) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this Permit. Each such occurrence shall be recorded in the inspection log and maintained as part of the operating record required by Module I, Condition D.5.(c) and Subpart 373-2.5(c). If any leaking container threatens human health or the environment, the Permittee must immediately report the situation as specified in Module I, Condition G, (i.e., Oral Reports).

(4)COMPATIBILITY OF WASTE WITH CONTAINERS 6NYCRR 373-2.9(c)

The Permittee must use a container made of or lined with materials which will not react with, and is otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired and in accordance with the Permit Application.

E. MANAGEMENT OF CONTAINERS 6NYCRR 373-2.9(d)

1. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

2. A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak. Any leaks or spills of waste must be immediately cleaned up.

3. Containers holding hazardous waste (including containers used as secondary containment) must be marked with the words "Hazardous Waste" and with other words identifying their contents. Such containers must be stored in a clearly designated area separate from nonhazardous wastes and other materials. In the Powder Storage Building, any vat holding hazardous waste must be marked with the words "Hazardous Waste."

4. For confined space areas, such as the Powder Storage Building vats, the Permittee shall follow all applicable OSHA requirements and the Permittee's Standard Operating Procedures (SOPs) for such areas including that for confined space entry.

5. Containers may not be stacked more than two (2) high, except for boxes of detonators.

F. INSPECTIONS 6NYCRR 373-2.9(e)

1. The Permittee must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors at least weekly and comply with the Inspection Plan in Section F-2 and Tables F-1 & F-2 of the Permit Application which may require a more frequent inspection schedule. Loading and unloading areas must be inspected daily when in use (373-2.2(g)(2)(iv)). The Permittee shall correct any problems found.

2. The Permittee must maintain a minimum aisle space of 20 inches between double rows of containers or single rows of pallets and allow for the unobstructed movement of personnel to perform inspections.

G. SPECIAL REQUIREMENTS AND TREATMENT FOR IGNITABLE OR REACTIVE WASTE 6NYCRR 373-2.9(g)

The Permittee shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line.

H. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE 6NYCRR 373-2.9(h)

1. The Permittee shall not place incompatible wastes or incompatible wastes and materials in the same container.

2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.

3. A container holding a hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from other materials or protected from them by means of a dike, berm, wall, or other device.

I. CLOSURE 6NYCRR 373-2.9(i)

At closure, all hazardous waste and hazardous waste residues must be removed from the storage area and containment system. Remaining containers, liners, bases, and soil containing or contaminated with

hazardous waste or hazardous waste residues must be decontaminated or removed. The Permittee must comply with the Closure Plan incorporated into this Permit pursuant to Module I.

J. AIR EMISSION STANDARDS 6NYCRR 373-2.9(j)

The Permittee shall manage all hazardous waste placed in a container in accordance with the applicable requirements of sections 373-2.27, 373-2.28 and 373-2.29, with attention to paragraphs: (a) through (d) and (g) through (k) of 373-2.29.

K. SCHEDULE OF COMPLIANCE

Within 180 days of the effective date of this Permit, the secondary containment system (including floor, sump, trench, and curb) of the Liquid Chemical Storage Building No. 3016 must be inspected and certified by a New York registered Professional Engineer to meet the requirements of 373-2.9 including being structurally sound, crack free and impervious. As required in the TAGM 3019 the secondary containment system will be inspected as follows:

> The secondary containment system will be inspected by an independent NYS registered Professional Engineer who is qualified to evaluate the condition of the concrete. All surfaces will be completely exposed where possible and inspected for cracks, failed joint filler, welding or sealant, differential settlement, and any other defects which may decrease the relative impermeability of the containment areas or reduce the effectiveness of collecting spilled waste or other material. The engineer will prepare a detailed report which specifies the nature and content of the inspection, observations made, details of any defects found (including photographs, if needed to fully describe the defects), evaluate the adequacy of any repairs made during the year, provide details of any remedial action taken (including methods, procedures, and material specifications) and certify that all repairs made in response to the inspections were made in accordance with descriptions contained within the report. The engineer will provide a detailed specification for the coating to be applied to the system. The report and specification will be submitted to the Department. The frequency of subsequent inspections and maintenance needs will be determined by the Department based upon the results of the initial inspection.

The Permittee shall have the concrete secondary containment system of the Liquid Chemical Storage Building No. 3016 coated with an impervious coating as specified by the engineer as above within 180 days of the effective date of this Permit. The coating must be compatible with the wastes and materials stored and designed to protect the system.